In the Claims

The following Listing of Claims replaces all prior versions in the application:

LISTING OF CLAIMS

1. (Currently amended) Test device for testing at least one sample by optical detection of luminescence, comprising a site for receiving the sample, said site being arranged in such a way that the sample can receive a luminescence excitation and emit a luminescence light in an optical guiding plane of the device, the device further comprising collection means optically connected to the optical guiding plane for collecting the luminescence light, wherein the device further comprises, in the optical guiding plane, means operable to ~~send back~~direct, along said optical guiding plane towards the collection means, a part of the luminescence light emitted in the optical guiding plane and not directly collected by the collection means,

wherein the device is formed on a substrate, the optical guiding plane is a plane parallel to the substrate, and the luminescence light detection means is configured to receive luminescence light from the edge said plane parallel to the substrate.

2-3. (Canceled)

4. (Currently amended) Test device according to claim 1, wherein the means making it possible to ~~send back~~direct a part of the luminescence light towards the collection means are chosen from among: an elliptic mirror, a parabolic mirror, a photonic forbidden band structure, a resonating disc type structure and one or several focusing lenses.

5. (Original) Test device according to claim 1, wherein the collection means comprise at least one optical waveguide.

6. (Canceled)

7. (Original) Test device according to claim 1, wherein the excitation is a light beam and in that the collection means comprise means for filtering the excitation light beam.

8. (Original) Test device according to claim 1, wherein it comprises several sample reception sites.

9. (Original) Test device according to claim 1, wherein it is formed from a silicon substrate successively coated with a first layer of silicon oxide, a layer of silicon nitride acting as optical guiding plane and a second layer of silicon oxide in which is formed the site for receiving the sample.

10. (Previously Presented) Test device according to claim 1, wherein the sample is a biological sample chosen from among a micro-organism such as a bacteria, a fungus, a virus, a chemical compound, a healthy or tumorous cell, a molecule such as a peptide, a protein, an enzyme, a polysaccharide, a lipid, a lipoprotein, a nucleic acid, a hormone, an antigen, an antibody, a growth factor, or a hapten.

11. (Previously Presented) Test device according to claim 9, wherein the sample is a biological sample chosen from among a micro-organism such as a bacteria, a fungus, a virus, a chemical compound, a healthy or tumorous cell, a molecule such as a peptide, a protein, an enzyme, a polysaccharide, a lipid, a lipoprotein, a nucleic acid, a hormone, an antigen, an antibody, a growth factor, or a hapten.

12. (Canceled)

13. (New) A test device for testing at least one sample by optical detection of luminescence, the test device comprising:

a site for receiving the sample, said site being arranged such that the sample receives a luminescence excitation and emits a luminescence light in an optical guiding plane of the device;

collection means optically connected to the optical guiding plane for collecting the luminescence light;

means disposed in the optical guiding plane operable to direct, along said optical guiding plane towards the collection means, a part of the luminescence light emitted in the optical guiding plane and not directly collected by the collection means,

wherein the device is formed on a substrate, the optical guiding plane is a plane parallel to the substrate, and luminescence is on an edge of said substrate at outputs of the collection means.